



## Qiagen HANDS-ON TRAINING: NGS DATA ANALYSIS

June 16<sup>th</sup>-18<sup>th</sup>, 9:00-16:00 at the LMU Biocenter

### Course 1 - June 16<sup>th</sup>, Tuesday

#### Analyzing human diseases: Biomedical Genomics Workbench and Variant Analysis

Hands on course CLC Biomedical Genomics WB and Ingenuity Variant Analysis

- General introduction on the software and main features
- Data preparation and QC evaluation
- Analyze one/multiple samples
- Identify variants in
  - Whole genome
  - Whole exome
  - Targeted panels
  - Transcriptome analysis (RNA-Seq)
- Annotate variants
- Filter variants
  - Identify known variants
  - Remove known variants
- Sample comparison
  - Somatic variants in tumor/normal pair
- Identify casual variants from human sequencing data in Ingenuity Variant Analysis
  - Cancer driver mutations
  - Rapid identification of casual mutation in genetic disease (HGMD<sup>®</sup>)

### Course 2- June 17<sup>th</sup>, Wednesday

#### Analyzing any organism: Basic training on Genomics Workbench

Hands on course CLC Genomics WB

- General introduction on NGS and main software features
- Data preparation and QC evaluation
- Read mapping and detail
- Map reads to reference and variant detection
- Introduction to workflows: how to set-up an automatic pipeline

### Course 3 - June 18<sup>th</sup>, Thursday

#### Analyzing any organism: Advanced training on Genomics Workbench

Hands on course CLC Genomics WB

- Introduction to *de novo* sequencing and genome finishing
- *De novo* assembly
- Transcriptome analysis: RNA-Seq
- Chip-Seq

These training courses are open to all and free of charge. Please provide us with your specific interests beforehand, so that we can plan the trainings accordingly. We want to give access to the course to as many participants as possible. Therefore, registration to more than one day will be accepted only if free seats are available.

Please register by email to Andreas Brachmann ([brachmann@lmu.de](mailto:brachmann@lmu.de)).

or

Course 1 <https://www.eventbrite.com/e/ngs-data-training-at-lmu-day-1-tickets-16756064841>

Course 2 <https://www.eventbrite.com/e/ngs-data-training-at-lmu-day-2-tickets-16756851193>

Course 3 <https://www.eventbrite.com/e/ngs-data-training-at-lmu-day-3-tickets-16757117991>

Biozentrum der LMU, Großhaderner Straße 2-4, 82152 Planegg-Martinsried